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EXAMINER

SOBUTKA, PHILIP

ART UNIT

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2618

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/787,868

Applicant(s)

BIENEK ET AL.

Examiner

Philip J. Sobutka

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 64-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 64,66-68,70 and 75-77 is/are rejected.
- 7) ☒ Claim(s) 65,69,71-74,78 and 79 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The replacement drawings were received on June 22, 2007. These drawings are not acceptable.
2. Examiner gratefully acknowledges applicant's labeling of drawings elements, which has removed the previous drawing objection. New formal drawings incorporating the informal labels are now required as noted below.
3. The drawings are objected to because, as required by 37 CFR 1.84 (I), which addresses character of lines, numbers, and letters in drawings:

*All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well-defined. The weight of all lines and letters must be heavy enough to permit adequate reproduction. This requirement applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. Lines and strokes of different thicknesses may be used in the same drawing where different thicknesses have a different meaning.*

4. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because in figures 1, 2D, 3,4,5A,5B,5C,6,and 9, the lines and lettering in the figures are not "clean" and "uniformly thick and well-defined". Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings

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are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 64,66-68,70,75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietzold, III et al (US 6,091,765) in view of Kautmann (DE 3010707)

Consider claim 64. Pietzold teaches a terminal for use with a mobile phone, comprising:

a transmitter stage (*Pietzold, see figure 6, item 152*);

a receiver stage (*Pietzold, see figure 6, items 150*);  
a switch-over and adapter stage (*Pietzold, see figure 1, item 24*); and  
a control unit that is programmable over a wireless interface to actuate the adapter stage and to set a predetermined value of the at least one functional parameter (*Pietzold see figure 1, item 18, column 1, lines 45-65, column 5, line 50 – column 6, line 22*) .

Pietzold lacks a teaching of passive structural elements in with micro switches associated with the passive structural elements, the micro switches or micro relays having a predetermined configuration for actuating the passive structural elements and having at least one functional parameter, the at least one functional parameter comprising a frequency characteristic.

Kautmann teaches a passive structural elements with micro switches for actuating the passive structures elements to control a functional parameter comprising a frequency characteristic (*Kautmann, see figures 1,2, and pages 2 and 3 of the translation where Kautmann describes the switching unit 3 controlling the frequency of the filter arrangements. Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8*).

It would have been obvious to one of ordinary skill in the art to modify Pietzold to use the electronically controlled switching arrangement of Kautmann in order to easily allow fast computer control of the programming adjustments as taught by Kautmann (see translation page 2, paragraph 6).

As to claim 66, note that Pietzold in view of Kautmann as applied to claim 64, teach wherein the control unit comprises an on/off switch for the transmitter stage and the receiver stage, wherein a switch-off signal is transmitted to the on/off switch, the switch-off signal deactivating the transmitter stage and the receiver stage, and wherein the switch-off signal is transmitted before an actuation signal is transmitted to the micro switches or the micro relays (*Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 67 Pietzold in view of Kautmann as applied to claim 66, teach wherein the control unit comprises a sensing unit connected to the on/off switch, wherein a switch-on signal is transmitted to the on/off switch, the switch-on signal activating the transmitter stage and the receiver stage, and wherein the switch-on signal is transmitted after termination of a program, the program being used to set the at least one functional parameter (*Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 68, Pietzold in view of Kautmann as applied to claim 64 teaching of at least one of the micro switches or micro relays are integrated with passive structural elements on a substrate with a high dielectric constant. (*Pietzold teaches fabricating all of the programmable hardware elements, which would include Kautman's switches on a substrate since less space is requires as taught on column 8, lines 54-68*).

As to claim 70, Pietzold in view of Kautmann as applied to claim 64, also teaches wherein the control unit comprises: a topology memory for storing a topology of the passive structural elements, the topology corresponding to the micro switches or the

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micro relays; an algorithm memory for storing code to affect a calculation algorithm, the calculation algorithm for calculating a predetermined value of the at least one functional parameter based on the topology; and a calculation stage which uses the calculation algorithm to: determine a micro switch arrangement and or a micro relay arrangement; and obtain the predetermined value of the at least one functional parameter. *(Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8).*

Consider claim 75. Pietzold teaches a method for operating a terminal associated with a mobile phone, the method comprising:

transmitting an actuation signal from a transmitter stage to a receiver stage *(Pietzold teaches over the air programming, i.e. from a transmitter to the devices receiver see figure 1, item 18, column 1, lines 45-65, column 5, line 50 – column 6, line 22, column 46, lines 10-20) and*

and utilizing sequences within the activation signal for deactivating transmitting operations of the transmitter stage and receiving operations of the receiver stage *(Pietzold teaches deactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60);*

Pietzold lacks a teaching of the actuation configuration signal being transmitted to a micro switch configuration.

Kautmann teaches a passive structural elements with micro switches for actuating the passive structures elements to control a functional parameter comprising a frequency characteristic (*Kautmann, see figures 1,2, and pages 2 and 3 of the translation where Kautmann describes the switching unit 3 controlling the frequency of the filter arrangements. Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8*).

It would have been obvious to one of ordinary skill in the art to modify Pietzold to use the electronically controlled switching arrangement of Kautmann in order to easily allow fast computer control of the programming adjustments as taught by Kautmann (see translation page 2, paragraph 6). Note that the arrangement of Pietzold in view of Kautmann would protect the micro switch arrangement when powered off as well as conserve power.

As to claim 76, Pietzold in view of Kautmann as applied to claim 75, further comprising automatically reactivating the transmitter stage and the receiver stage after a termination of a program, the program being used to set a functional parameter associated with the micro switch configuration (*Pietzold teaches reactivating the transmitter and receiver during reconfiguration, see especially column 37, lines 29-60*).

As to claim 77 Pietzold in view of Kautmann teach the method of claim 75, further comprising: determining a topology of passive structural elements in the transmitter stage or receiver stage, the topology corresponding to the micro switches or the micro relays; storing, in a topology memory, a calculation algorithm, the calculation algorithm



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for calculating a predetermined value of the functional parameter based on the topology; and determining, based on the calculation algorithm, a micro switch arrangement and a micro relay arrangement. . *(Note that Kautmann's arrangement includes an algorithm for calculating the switch arrangement to obtain the frequency parameter, as described in the translation on page 2, paragraphs 7 and 8).*

### ***Allowable Subject Matter***

8. Claims 65,69,71-74,78,79 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider claim 65. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 64, wherein the transmitter stage, the receiver stage, or the switch-over and adapter stage comprises a plurality of micro motors, the plurality of micro motors for mechanically adjusting the passive structural elements and having a control connection to the control unit.

Consider claim 69. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 65, wherein the micro motors are integrated with the passive structural elements on a substrate with a high dielectric constant.

Consider claim 71. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 70, wherein the topology memory is configured to store a position and a topology that corresponds to actuator stages of a micro motor.

Consider claim 72. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 70, wherein the calculation stage is configured to calculate an actuation signal for a micro motor, the actuation signal being use to obtain the predetermined value of the at least one functional parameter.

Consider claim 73. The nearest prior art as shown in Kautmann and Pietzold fail to teach the terminal of claim 64, wherein the control unit comprises: a configuration memory for storing a plurality of switching matrices, each switching matrix being assigned a value of the at least one functional parameter; and a pointer stage to associate the configuration memory with the value of the at least one functional parameter.

Consider claim 78. The nearest prior art as shown in Kautmann and Pietzold fail to teach the method of claim 77, wherein the topology memory stores a position and a topology corresponding to actuator stages of the micro motor.

Consider claim 79. The nearest prior art as shown in Kautmann and Pietzold fail to teach the method of claim 77, wherein the determining is performed by a calculation stage, the calculation stage calculating an actuation signal for the micro motor, and the actuation signal for use in obtaining the predetermined value of the functional parameter.

### **Response to Amendment**

9. Applicant's arguments filed June 22, 2007 have been fully considered but they are not persuasive.

10. applicant argues that Kautmann's teaching would not be relevant to the instant invention since Kautmann addressing tuning a receiver not a transmitter. Examiner maintains that one of ordinary skill in the art would recognize that a tuning arrangement for transmitters could be applied to receivers as well.

11. as to applicants arguments relating to Pietzold having a different reason for deactivating the transmitter and receiver stage, applicants arguments are far more detailed than the instant claims which do not distinguish over deactivations for merely resetting as Pietzold allegedly is limited to.

#### ***Conclusion***

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177.

16. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

**CENTRALIZED DELIVERY POLICY:** For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).



9/16/07

Philip Sobutka

(571) 272-7887

PHILIP J. SOBUTKA  
PATENT EXAMINER